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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,986	02/12/2002	Kazumasa Kaburagi	04329.2732	3523
22852	7590	03/09/2006	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			DESHPANDE, KALYAN K	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/072,986	<b>Applicant(s)</b> KABURAGI ET AL.	
	<b>Examiner</b> Kalyan K. Deshpande	<b>Art Unit</b> 3623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/12/02 &amp; 9/9/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Introduction***

1. The following is a non-final office action in response to the communications received on February 12, 2002. Claims 1-21 are now pending in this application.

### ***Information Disclosure Statement***

2. The examiner has reviewed the patents and articles supplied in the Information Disclosure Statements (IDS) provided on February 12, 2002 and September 9, 2002

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rembert (U.S. Patent No. 5101352).

As per claim 1, Rembert teaches:

An order assembly production method comprising:

preparing manufacturing schedules of several months on the basis of a demand forecast, reviewing the manufacturing schedules every predetermined period, and issuing the reviewed manufacturing schedules of several months (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where a work order module uses input parameters to determine a production

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schedule. The work order module accounts for creating schedules based on demand and the due date for the demand.);

issuing a procurement instruction of parts on the basis of the reviewed manufacturing schedules (see column 6 lines 20-29; where parts necessary for production of the final product are calculated and acquired.);

issuing a manufacture instruction when an order is received from a customer (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where work orders are instructions for manufacture based on a sales order.); and

assembling the parts in accordance with the manufacture instruction (see column 5 lines 1-42 and column 6 lines 30-67; where final products are built based on product specifications that can be defined by the bill of materials.).

Rembert fail to explicitly teach a demand forecast predetermined period that is shorter than a monthly basis. Rembert does teach determining production capabilities based on capacity, resources, inventory, operation hours, and completion deadline dates (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56). Though Rembert does not explicitly teach a demand forecast period of less than a month, the Rembert system is enabled to use such a time period to determine a production schedule. The advantage of using a demand forecast period that is shorter than a month is that it allows the system to maintain finished product levels for the immediate demand. It would have been obvious, at the time of the invention, for one of ordinary skill in the art to incorporate using a demand forecast

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period that is shorter than a month to the Rembert system in order to satisfy the immediate demand, which is a goal of Rembert (see column 1 lines 55-67).

As per claim 2, Rembert fails to teach the predetermined period basis that is shorter than the monthly basis is arbitrarily set. Claim 2 recites limitations already addressed by the rejection of claim 1; therefore the same rejection applies to this claim.

As per claim 3, Rembert fails to teach the reviewed manufacturing schedules and the manufacture instruction are issued by a business department system and the procurement instruction of parts is issued by a manufacturing department system. Rembert does teach individual modules containing scheduling functionality and procurement functionality that can be installed on a general or specific purpose computer (see column 4 lines 37-63). The software functionality can be run by any user who is deemed responsible to run such functionality, thus a business department and a manufacturing department can both run the functionality if deemed appropriate. Furthermore, a business department (sales or customer service department ) can view the generated schedule in order to track sales demand and provide customer service (see column 8 lines 3-45). The advantage of having a business department review the manufacturing schedules and a manufacturing department issue procurement instructions is that the both departments are aware of the schedule and status of each either in terms of forecasting demand and forecasting production thereby facilitating the satisfaction of demand. It would have been obvious, at the time of the invention, for one of ordinary skill in the art to require a business department to review the production schedule and have the manufacturing department issue procurement instructions in the

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Rembert system in order to inform both departments of each other's status and thereby facilitating the satisfaction of demand, which is a goal of Rembert (see column 1 lines 55-67).

As per claim 4, Rembert teaches:

The method according to claim 3, wherein when the reviewed manufacturing schedules issued from the business department system is not realized, the manufacturing department system returns the fact to the business department system to request to further change the reviewed manufacturing schedules (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where the production schedule can be modified based on capacity and resource constraints.).

As per claim 5, Rembert teaches:

The method according to claim 3, wherein the manufacturing department system presents delivery time information for each predetermined period basis to the business department system (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where the system uses due dates for the production of work orders.).

As per claim 6, Rembert teaches:

The method according to claim 3, wherein the manufacturing department system presents delivery time information for each sales route, for each product model, and for each predetermined period basis to the business department system (see

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column 8 lines 3-45; where delivery time and costs for each sales order is determined using a UPS iterary.).

As per claim 7, Rembert teaches:

The method according to claim 3, wherein the manufacturing department system deposits the procured parts as a vender managed inventory (see column 6 lines 1-29 and column 9 lines 1-53; where procured parts are incorporated into inventory. Inventory items are listed by their method of procurement, including vendor parts and produced parts.).

As per claim 8, Rembert teaches:

The method according to claim 7, wherein said vender managed inventory includes a general-purpose intermediate product which can be used in common to a plurality of products (see column 6 lines 1-29 and column 9 lines 1-53; where the inventory keeps track of how each inventory item was acquired, whether through a vendor or whether produced. The produced inventory items are intermediate products that are further used to produce final products.).

As per claim 9, Rembert teaches:

An order assembly production method comprising:

preparing manufacturing schedules of several months on the basis of a demand forecast, reviewing the manufacturing schedules every predetermined period while excepting a manufacturing schedule of a predetermined period from a target to be reviewed, and issuing the reviewed manufacturing schedules of several months (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34

lines 32-56; where a work order module uses input parameters to determine a production schedule. The work order module accounts for creating schedules based on demand and the due date for the demand.);

calculating the number of order-acceptable products for each predetermined period excepted from the reviewed target and the scheduled number of products to be manufactured for each subsequent predetermined period on the basis of the reviewed manufacturing schedules (see column 13 lines 40-59; where the system calculates the know percentage of products that will be defective and incorporates this value in to production requirements.); and

making a response about delivery time to a customer with reference to the calculated number of order-acceptable products (see column 8 lines 3-45; where customer service is able to view sales order information including the UPS itinerary and production due date in order to inform customers of information regarding delivery.).

Rembert fails to teach a predetermined period basis that is shorter than a monthly basis. Claim 9 recites limitations already addressed by the rejection of claim 1; therefore the same rejection applies to this claim.

As per claim 10, Rembert fails to teach the number of days of the predetermined period basis that is shorter than the monthly basis is arbitrarily set. Claim 10 recites limitations already addressed by the rejection of claim 1; therefore the same rejection applies to this claim.



As per claim 11, Rembert fails to teach the reviewed manufacturing schedules are issued by a business department system and the number of order-acceptable products and the scheduled number of products are calculated by a manufacturing department system. Claim 11 recites limitations already addressed by the rejection of claim 3; therefore the same rejection applies to this claim.

As per claim 12, Rembert teaches:

The method according to claim 11, wherein when the reviewed manufacturing schedules issued from the business department system is not realized, the manufacturing department system returns the fact to the business department system to request to further change the reviewed manufacturing schedules (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where the production schedule can be modified based on capacity and resource constraints.).

As per claim 13, Rembert teaches:

The method according to claim 11, wherein the manufacturing department system presents delivery time information for each predetermined period basis to the business department system (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where the system uses due dates for the production of work orders.).

As per claim 14, Rembert teaches:

The method according to claim 11, wherein the manufacturing department system presents delivery time information for each sales route, for each product

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model, and for each predetermined period basis to the business department system (see column 8 lines 3-45; where delivery time and costs for each sales order is determined using a UPS iterative.).

As per claim 15, Rembert teaches:

The method according to claim 11, wherein the manufacturing department system deposits the procured parts as a vendor managed inventory (see column 6 lines 1-29 and column 9 lines 1-53; where procured parts are incorporated into inventory. Inventory items are listed by their method of procurement, including vendor parts and produced parts.).

As per claim 16, Rembert teaches:

The method according to claim 15, wherein said vendor managed inventory includes a general-purpose intermediate product which can be used in common to a plurality of products (see column 6 lines 1-29 and column 9 lines 1-53; where the inventory keeps track of how each inventory item was acquired, whether through a vendor or whether produced. The produced inventory items are intermediate products that are further used to produce final products.).

As per claim 17, Rembert teaches:

The method according to claim 11, wherein when the number of order-acceptable products is smaller than the number of products predetermined in the manufacturing schedule of the predetermined period, the business department system allocates the number of order-acceptable products between sales routes (see column 6 lines 1-29 and column 9 lines 1-53; where the inventory keeps track of how

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each inventory item was acquired, whether through a vendor or whether produced.

The produced inventory items are intermediate products that are further used to produce final products.).

As per claim 18, Rembert teaches:

An order assembly production system comprising:

a first system which prepares manufacturing schedules of several months on the basis of a demand forecast and reviews the manufacturing schedules every predetermined period (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where a work order module uses input parameters to determine a production schedule. The work order module accounts for creating schedules based on demand and the due date for the demand.); and

a second system which issues a procurement instruction of parts on the basis of the reviewed manufacturing schedules and, when receiving an assembly instruction from the first system in accordance with an order from a customer, instructs to start to assemble the parts (see column 5 lines 1-42 column 6 lines 20-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where parts necessary for production of the final product are calculated and acquired. Work orders are instructions for manufacture based on a sales order. Final products are built based on product specifications that can be defined by the bill of materials.).

Rembert fails to teach on a predetermined period basis that is shorter than a monthly basis. This limitation is already addressed by the rejection of claim 1; therefore the same rejection applies here.

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As per claim 19, Rembert fails to teach the number of days of the predetermined period basis that is shorter than the monthly basis is arbitrarily set. Claim 19 recites limitations already addressed by the rejection of claim 1; therefore the same rejection applies to this claim.

As per claim 20, Rembert teaches:

An order assembly production system comprising:

a first system which prepares manufacturing schedules of several months on the basis of a demand forecast and reviews the manufacturing schedules every predetermined period while excepting a manufacturing schedule of a predetermined period from a target to be reviewed (see column 6 lines 54-67, column 10 lines 34-67, column 11 lines 1-39, and column 34 lines 32-56; where a work order module uses input parameters to determine a production schedule. The work order module accounts for creating schedules based on demand and the due date for the demand.); and

a second system which issues a procurement instruction of parts on the basis of the reviewed manufacturing schedules and makes a response about the number of order-acceptable products for each predetermined period excepted from the reviewed target and the scheduled number of products to be manufactured for each subsequent predetermined period on the basis of the reviewed manufacturing schedules to the first system, wherein the first system makes a response about delivery time to a customer with reference to the number of order-acceptable products (see column 6 lines 20-29, column 8 lines 3-45, and column 13 lines 40-59;

where parts necessary for production of the final product are calculated and acquired. The system calculates the know percentage of products that will be defective and incorporates this value in to production requirements. Customer service is able to view sales order information including the UPS itinerary and production due date in order to inform customers of information regarding delivery.).

Rembert fails to teach a predetermined period basis that is shorter than a monthly basis. This limitation is already addressed by the rejection of claim 1; therefore the same rejection applies to this claim.

As per claim 21, Rembert fails to teach the number of days of the predetermined period basis that is shorter than the monthly basis is arbitrarily set. Claim 21 recites limitations already addressed by the rejection of claim 1; therefore the same rejection applies to this claim.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are pertinent to the current invention, though not relied upon:

Rush et al. (U.S. Patent No. 6119102) teaches an MRP system that operates on a single data set containing records for all item demands and supplies.

Huang et al. (U.S. Patent No. 6151582) teaches a decision support system for managing an agile supply chain including a server side and a client side.

Tanaka et al. (U.S. Patent No. 5946663) teaches a method of planning a production schedule with a production order preparing unit.

Dietrich et al. (U.S. Patent No. 5548518) teaches a novel allocation method for generating a feasible production schedule.

Brandimarte et al. (Brandimarte, Paolo; Rigodanza, Massimo; Roero, Luca; "Conceptual Modeling of an Object-Oriented Scheduling Architecture Based on the Shifting Bottleneck Procedure", *IEE Transactions*, October 2000, pp. 921-929) teaches a material requirement planning systems that model the shop floor more accurately to more accurately develop production schedules.

Kenat et al. (Kenat, John J.; Sridharan, V.; "The Value of Using Scheduling Information in Planning Material Requirements", *Decision Sciences*, Spring 1998, pp. 479-497) teaches the use of computers in manufacturing planning systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan K. Deshpande whose telephone number is (571) 272-5880. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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